AMENDMENTS

Claim amendments:

The following shows the status of all claims:

1. (Currently Amended) A device information acquisition method ~~of~~ for acquiring device information ~~in which a function of devices is written~~ from ~~the~~ devices connected to a network constituted by ~~a single bus which is~~ a local bus ~~to which the devices are connected or a network formed by connecting, through bridges,~~ or a plurality of buses including the local bus and one or more remote buses connected to the local bus through bridges ~~to which the devices are not connected~~, comprising:

the discrimination step of discriminating whether the network ~~is constituted by a plurality of buses or a single bus~~includes one or more remote buses;

the bus ID acquisition step of acquiring a bus ID assigned to each of the remote buses;

the information acquisition step of acquiring device information from all devices connected to the network; and

the information discarding step of, when at least one of the remote buses is disconnected from the network, discarding device information of devices connected to the disconnected remote bus,

wherein if it is discriminated in the discrimination step that the network ~~is constituted by a single bus~~does not include one or more remote buses, the information acquisition step is executed with respect to all devices connected to the local bus, and

if it is discriminated in the discrimination step that the network is constituted by ~~a plurality of~~one or more remote buses, the information acquisition step is executed with respect to all devices connected to ~~the~~ a buses ~~each~~ having ~~the~~ a bus ID acquired in the bus ID acquisition step

wherein a counting node having a counter indicating a number of times of occurrence of bus initialization is connected to each bus of the network,

wherein the method further comprises the acquisition step of periodically acquiring a value of a counter of the counting node corresponding to a remote bus, and

wherein the information acquisition step is performed again with respect to each of the devices connected to a remote bus when a value different from the previously acquired value is acquired in the acquisition step for that remote bus.

2. (Currently Amended) A method according to claim 1, wherein the discrimination step comprises checking whether the bridges are connected to the local bus, thereby discriminating whether the network ~~is constituted by a plurality of~~includes one or more remote buses.

3. (Currently Amended) A method according to claim 1, wherein the discrimination step comprises discriminating, if the value of the bus ID acquired in the bus ID acquisition step is a predetermined value, whether the network is constituted by a single bus, and discriminating, if the value of ~~the~~ a bus ID acquired in the bus ID acquisition step is other than the predetermined value, that the network is constituted by ~~a plurality of~~ one or more remote buses.

4. (Currently Amended) A method according to claim 1, wherein

each of the bridges ~~receives an asynchronous packet~~ on the local bus and holds forwarding information for determining whether to forward ~~the~~ asynchronous packets to ~~the~~ remote buses, and

the bus ID acquisition step comprises acquiring forwarding information from all bridges connected to the local bus.

5. (Currently Amended) A method according to claim 1, wherein

the network comprises at least one bus ID management node for managing bus ID usage information ~~in which all bus IDs assigned to at least one bus constituting the network is connected to the network~~, and

the bus ID acquisition step comprises acquiring bus IDs assigned to all the buses by acquiring the bus ID usage information from the bus ID management node.

6. (Original) A method according to claim 1, wherein the information acquisition step comprises:

the identifier acquisition step of acquiring an identifier assigned to each of the devices connected to the buses of the network; and

the individual device information acquisition step of acquiring the device information from each device identified by the identifier acquired in the identifier acquisition step.

7. (Currently Amended) A method according to claim 6, wherein

the network comprises at least one identifier management node for managing the identifiers~~,~~ acquired ~~by performing~~ in the identifier acquisition step ~~with respect to the respective devices connected to each bus,~~ by writing the identifiers in identifier usage information ~~is connected to each of the buses of the network~~, and

the individual device information acquisition step is performed with respect to each of the devices identified by the identifiers written in the identifier usage information ~~acquired from the identifier management node~~.

8. (Currently Amended) A method according to claim 6, wherein

at least one device information holding node for holding the device information acquired in the individual device information acquisition step is connected to each of the buses of the network ~~by performing~~and performs the identifier acquisition step and the individual device information step with respect to each of the devices connected to each bus, and

the device information is acquired from the device information holding node.

9. (Currently Amended) A method according to claim 1, wherein

the method further comprises the initialization notification request step of requesting ~~the~~ respective nodes connected to ~~the~~ respective remote buses to notify occurrence of bus initialization in ~~each of~~ the respective remote buses, and

the information acquisition step is performed again with respect to each ~~of the~~ devices connected to ~~the~~ a remote bus upon reception of a notification ~~to the~~ of initialization ~~notification request step~~ of that remote bus.

10. (Currently Amended) A method according to claim 1, wherein

~~at least~~ a counting node having a counter indicating ~~the~~ a number of times of occurrence of bus initialization ~~in the single bus or the plural buses of the network~~ is connected to each bus of the network,

the method further comprises the acquisition step of periodically acquiring a value of ~~the~~ a counter of the counting node ~~connected~~ corresponding to ~~the~~ a remote bus, and

the information acquisition step is performed again with respect to each of the devices connected to ~~each of the~~ a remote buses when a value different from the previously acquired value is acquired in the acquisition step for that remote bus.

11. (Currently Amended) ~~A method according to claim 4, wherein~~ A device information acquisition method for acquiring device information from devices connected to a network constituted by a local bus or a plurality of buses including the local bus and one or more remote buses connected to the local bus through bridges, comprising:

the discrimination step of discriminating whether the network includes one or more remote buses;

the bus ID acquisition step of acquiring a bus ID assigned to each of the remote buses;

the information acquisition step of acquiring device information from all devices connected to the network; and

the information discarding step of, when at least one of the remote buses is disconnected from the network, discarding device information of devices connected to the disconnected remote bus,

wherein if it is discriminated in the discrimination step that the network does not include one or more remote buses, the information acquisition step is executed with respect to all devices connected to the local bus, and

if it is discriminated in the discrimination step that the network is constituted by one or more remote buses, the information acquisition step is executed with respect to all devices connected to a bus having a bus ID acquired in the bus ID acquisition step,

wherein each of the bridges on the local bus and holds forwarding information for determining whether to forward asynchronous packets to remote buses,

wherein the bus ID acquisition step comprises acquiring forwarding information from all bridges connected to the local bus,

wherein the method further comprises:

the update notification request step of requesting the bridge connected to the local bus to notify ~~that~~ when the forwarding information held by the bridge is updated; and

the forwarding information check step of checking whether a bit updated from a first state value to a second state value and a bit updated from the second state value to the first state value exist in the forwarding information when a notification to the update notification request step is received,

wherein, when the bit updated from the first state value to the second state value is detected in the forwarding information check step, the information acquisition step is performed with respect to each device connected to a bus having a bus ID represented by the bit, and

wherein, when the bit updated from the second state value to the first state value is detected, the information discarding step is performed with respect to each device connected to a bus having a bus ID represented by the bit.

12. (Currently Amended) ~~A method according to claim 4, wherein~~A device information acquisition method for acquiring device information from devices connected to a network constituted by a local bus or a plurality of buses including the local bus and one or more remote buses connected to the local bus through bridges, comprising:

the discrimination step of discriminating whether the network includes one or more remote buses;

the bus ID acquisition step of acquiring a bus ID assigned to each of the remote buses;

the information acquisition step of acquiring device information from all devices connected to the network; and

the information discarding step of, when at least one of the remote buses is disconnected from the network, discarding device information of devices connected to the disconnected remote bus,

wherein, if it is discriminated in the discrimination step that the network does not include one or more remote buses, the information acquisition step is executed with respect to all devices connected to the local bus, and

if it is discriminated in the discrimination step that the network is constituted by one or more remote buses, the information acquisition step is executed with respect to all devices connected to a bus having a bus ID acquired in the bus ID acquisition step,

wherein each of the bridges on the local bus and holds forwarding information for determining whether to forward asynchronous packets to remote buses,

wherein the bus ID acquisition step comprises acquiring forwarding information from all bridges connected to the local bus,

wherein the method further comprises:

the forwarding information acquisition step of periodically acquiring the forwarding information held by the bridge connected to the local bus; and

the forwarding information check step of checking whether a bit updated from a first state value to a second state value and a bit updated from the second state value to the first state value exist in the forwarding information acquired in the forwarding information acquisition step, ~~and~~ wherein, when the bit updated from the first state value to the second state value is detected in the forwarding information check step, the information acquisition step is performed with respect to each device connected to a bus having bus ID represented by the bit, and

when the bit updated from the second state value to the first state value is detected, the information discarding step is performed with respect to each device connected to a bus having a bus ID represented by the bit.

13. (Currently Amended) ~~A method according to claim 5, wherein~~A device information acquisition method for acquiring device information from devices connected to a network constituted by a local bus or a plurality of buses including the local bus and one or more remote buses connected to the local bus through bridges, comprising:

the discrimination step of discriminating whether the network includes one or more remote buses;

the bus ID acquisition step of acquiring a bus ID assigned to each of the remote buses;

the information acquisition step of acquiring device information from all devices connected to the network; and

the information discarding step of, when at least one of the remote buses is disconnected from the network, discarding device information of devices connected to the disconnected remote bus,

wherein if it is discriminated in the discrimination step that the network does not include one or more remote buses, the information acquisition step is executed with respect to all devices connected to the local bus, and

if it is discriminated in the discrimination step that the network is constituted by one or more remote buses, the information acquisition step is executed with respect to all devices connected to a bus having a bus ID acquired in the bus ID acquisition step,

wherein the network comprises at least one bus ID management node for managing bus ID usage information,

wherein the bus ID acquisition step comprises acquiring bus IDs assigned to all the buses by acquiring the bus ID usage information from the bus ID management node,

wherein the method further comprises the bus ID change check step of periodically acquiring the bus ID usage information and ~~checking~~ determining on the basis of the acquired bus ID usage information whether a newly used bus ID or a bus ID that has not been used exists, and

when existence of the newly used bus ID is detected in the bus ID change check step, the information acquisition step is performed with respect to each device connected to a bus identified by the bus ID, and when existence of a bus ID that has not been used is detected, the information discarding step is performed with respect to each device connected to a bus identified by the bus ID.

14. (Original) A method according to claim 1, further comprising updating the acquired device information by periodically performing the discrimination step, the bus ID acquisition step, and the information acquisition step.

Claims 15-16 are canceled.